

2016 Annual Report Data Webinar

Home Performance with ENERGY STAR Program



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Agenda

- **Making a Difference**
- **Summary of Data Limitations**
- **2016 Program Summary**
- **2016 Data & Sponsor Highlights**
 - Budgeting
 - Marketing
 - Workforce Deployment
 - Incentives
 - Measures
 - QA
- **Q&A**



We are making a difference!



Importance of the ENERGY STAR Brand



91%



of households recognized the ENERGY STAR label when shown the label.

Source: The Consortium for Energy Efficiency's report *National Awareness of ENERGY STAR for 2016*

Expanding Applicability of HPwES



Whole-House
Multiple Measure
Programs



Incremental
Programs-HVAC



Multi-Family
Programs



Affordable/Low
Income Programs



Renewable
Programs

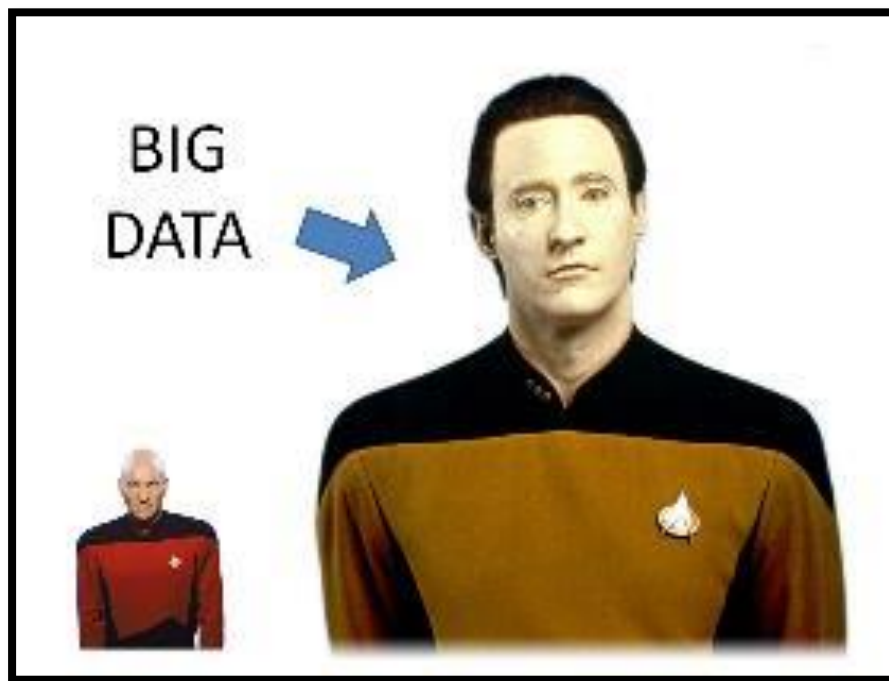


Health and Home
Performance
Programs



Home Energy Score

2016 Annual Report Data Overview



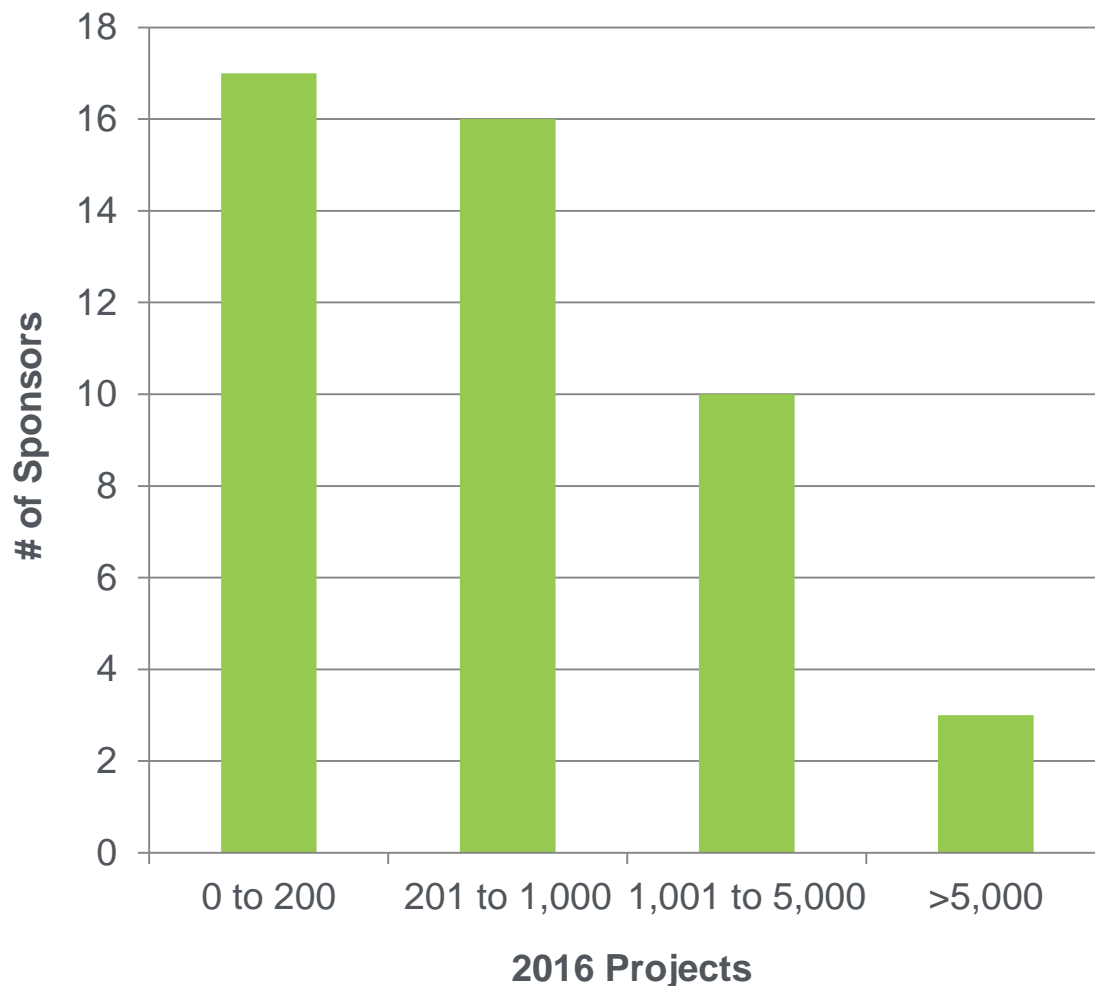
Data Limitations

- Data is as reported by our Sponsors.
- Not all questions are answered by all Sponsors.
- Apples-to-apples comparisons are complicated by differing reporting regimes and categorizations (see below).
- Program administrative costs represent a heterogeneous cross-section of sub-categories which may vary broadly from one sponsor to another; admin cost sub-categories may include any or all of the following: program administrator staff time and direct costs, implementation vendor staff time and direct cost, marketing, quality assurance, EM&V, or other miscellaneous program support costs.
- Energy savings data is calculated using predictive methods defined by each individual sponsoring program or state. Methods may include whole building energy simulations, modeled savings for individual measures or measure packages, deemed energy savings, or a combination. Underlying assumptions including baselines, effective useful life, and other key factors may vary significantly from one sponsor to another.
- Energy savings data is captured and reported only for the fuel types monitored by each sponsor. As a result, not all fuel savings attributable to Home Performance with ENERGY STAR will be represented in this data set.
- All per-project averages are weighted by Sponsor project count unless otherwise indicated.

2016 Program Summary

81,117	HPwES completed projects – equivalent to retrofitting Salt Lake City, UT
32	States represented by Sponsors
46	Sponsors
13	Millions of dollars reported spending on midstream incentives (N=25)
155	Millions of dollars reported spending on homeowner incentives (N=35)
1.8	Millions of MMBtu in reported savings (N=35) – enough energy to power 34,000 cars for a year

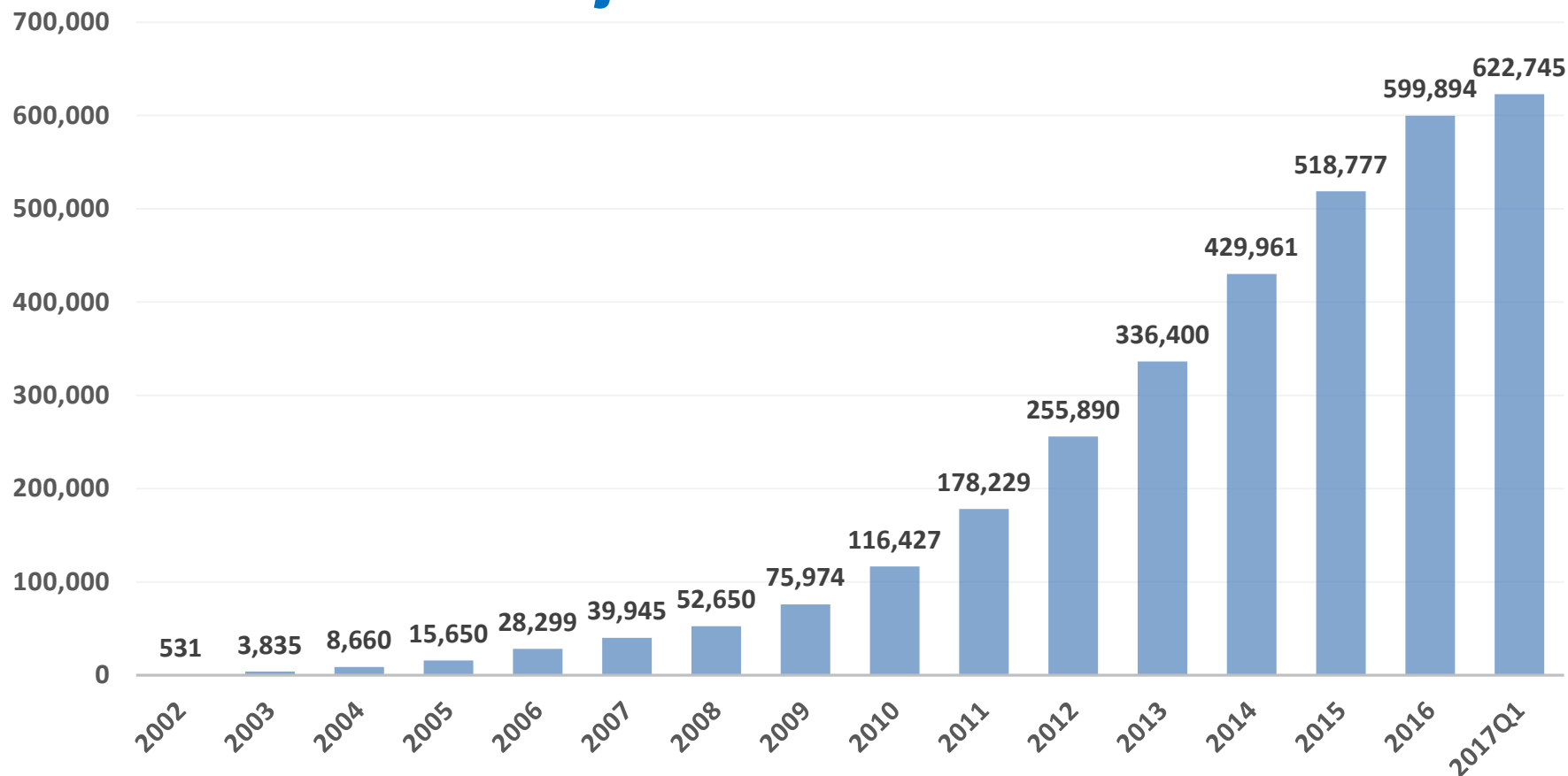
Projects Completed



- 46 Sponsors completed a total of 81,117 projects* during 2016.
- Over 600,000 projects completed since program inception – equivalent to retrofitting all of the homes in Philadelphia.

**** A completed project is counted for each independent contract executed between a homeowner and a qualified participating contractor which meets all program requirements.***

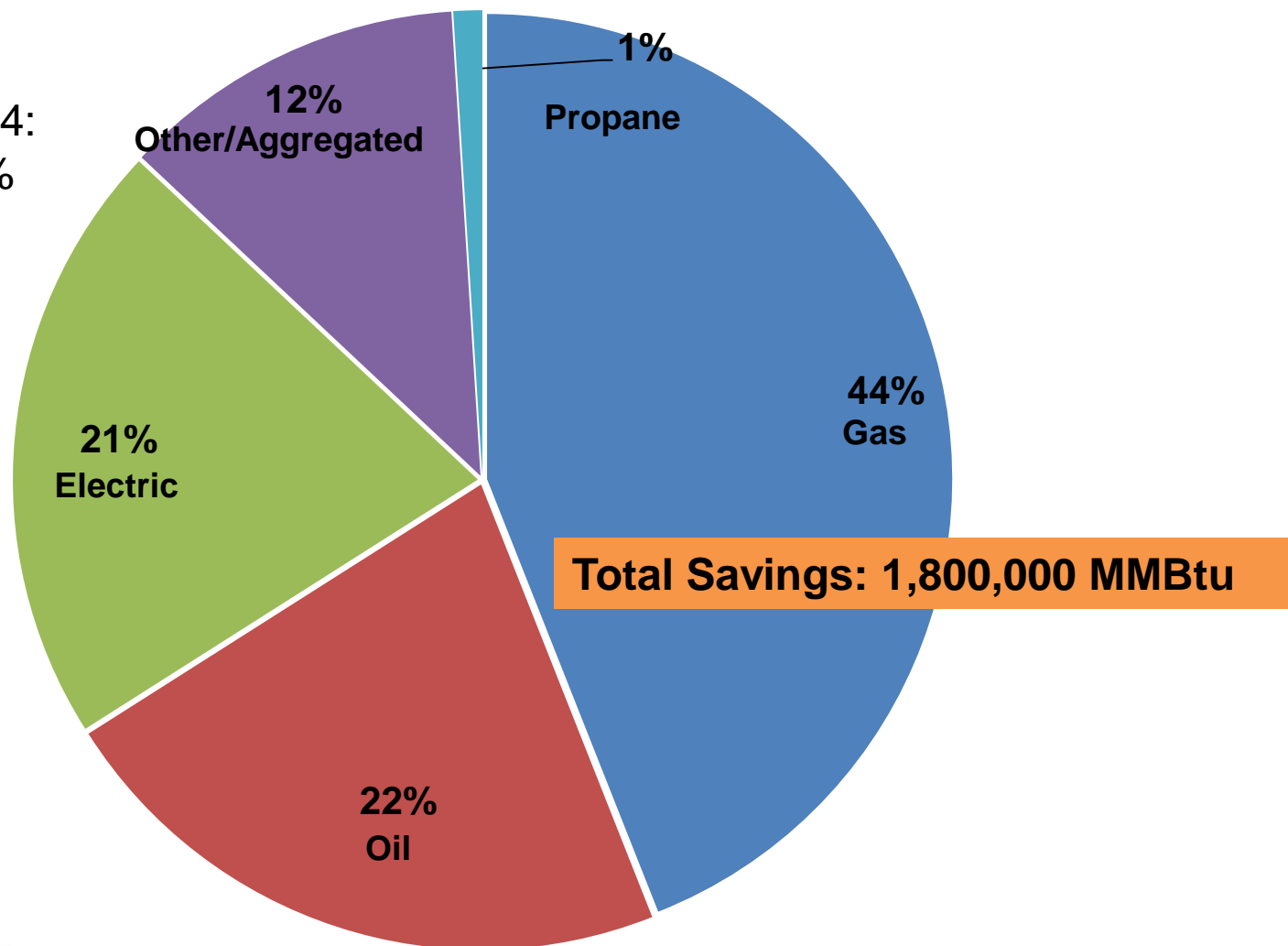
Projects Since 2002



Over 600,000 Projects!

Total First-Year Gross Site Energy Savings as Reported by Sponsors (N=35)

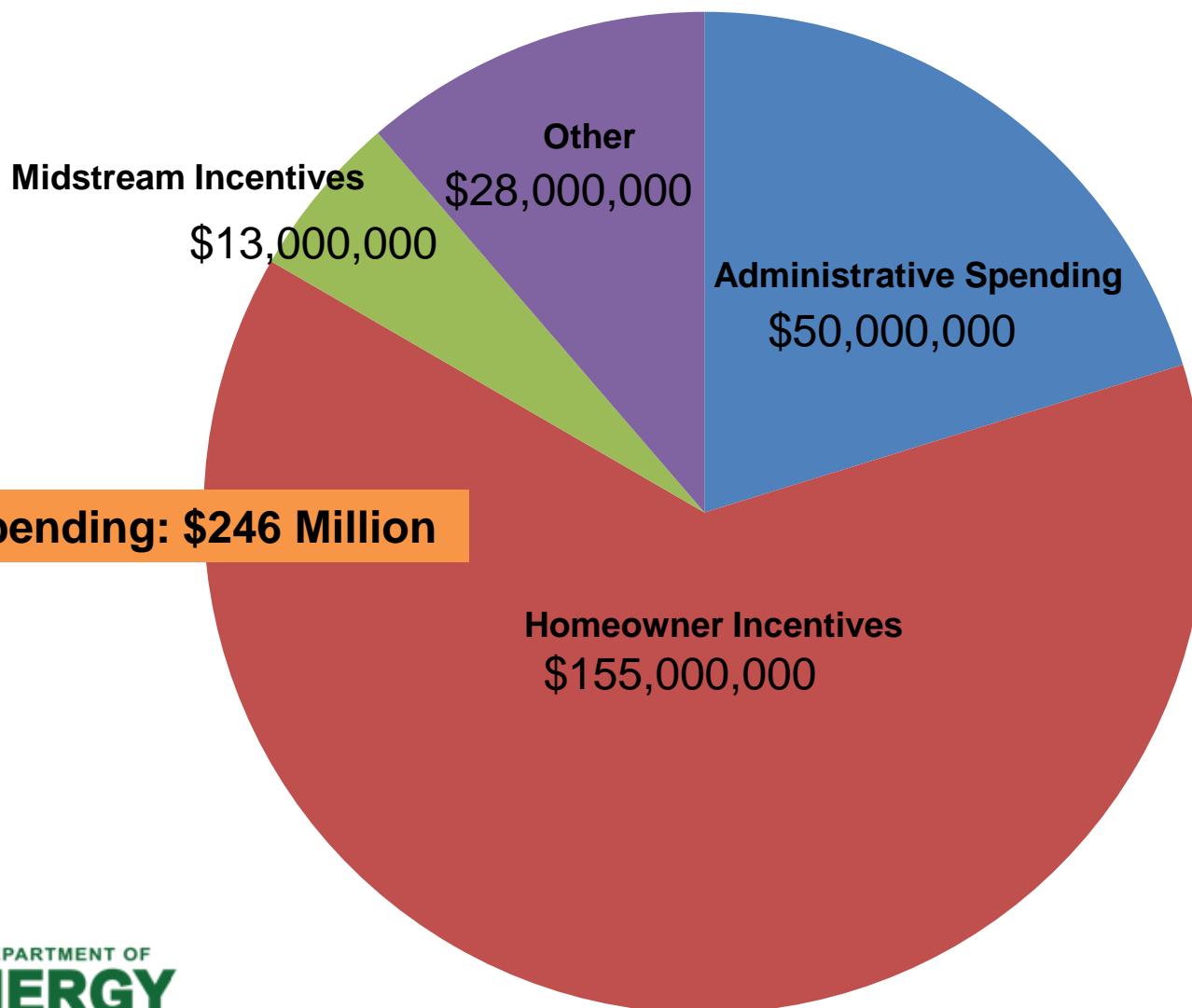
Compare to 2014:
Gas 48% to 44%
Electric, Oil,
Propane
unchanged



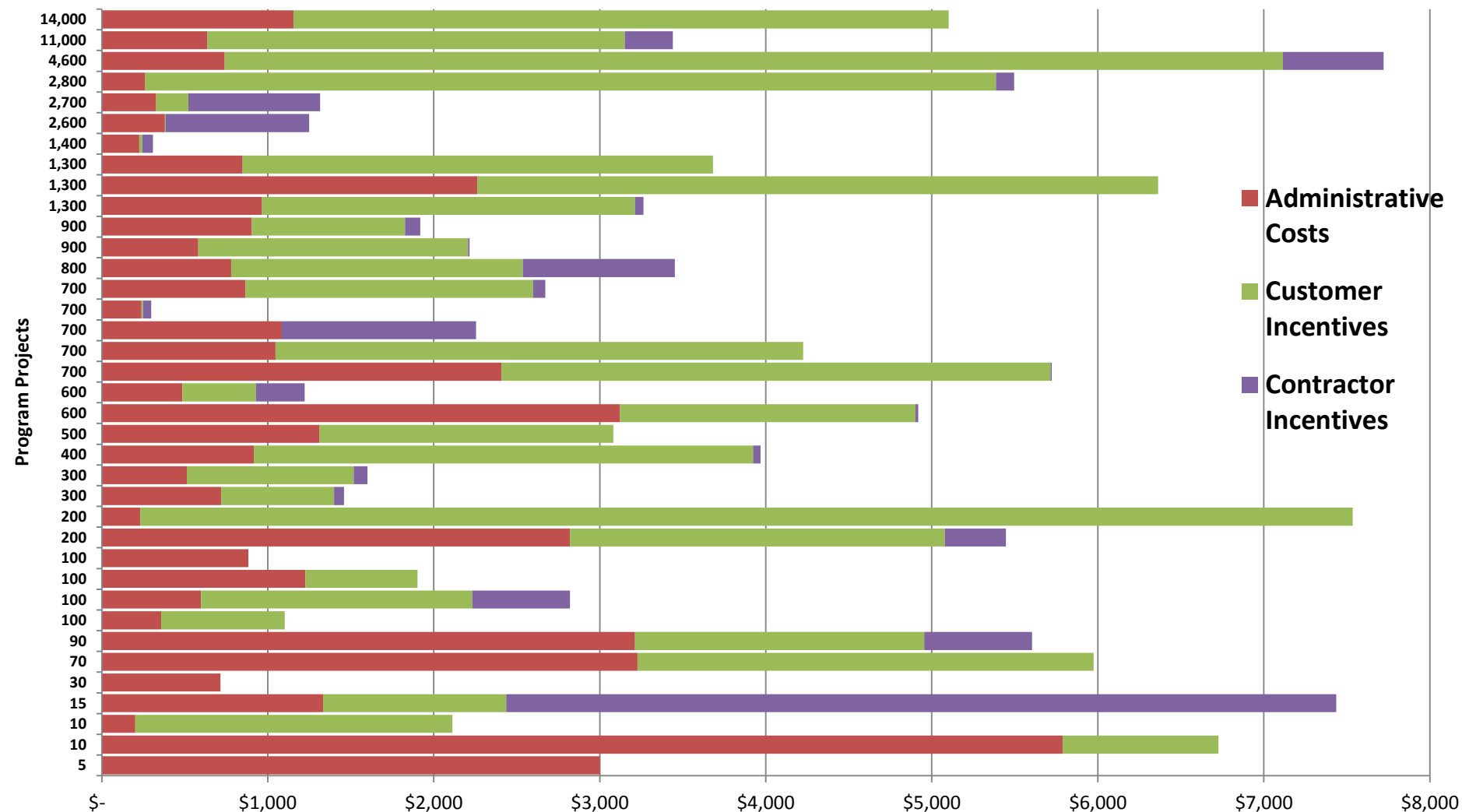
Program Spending



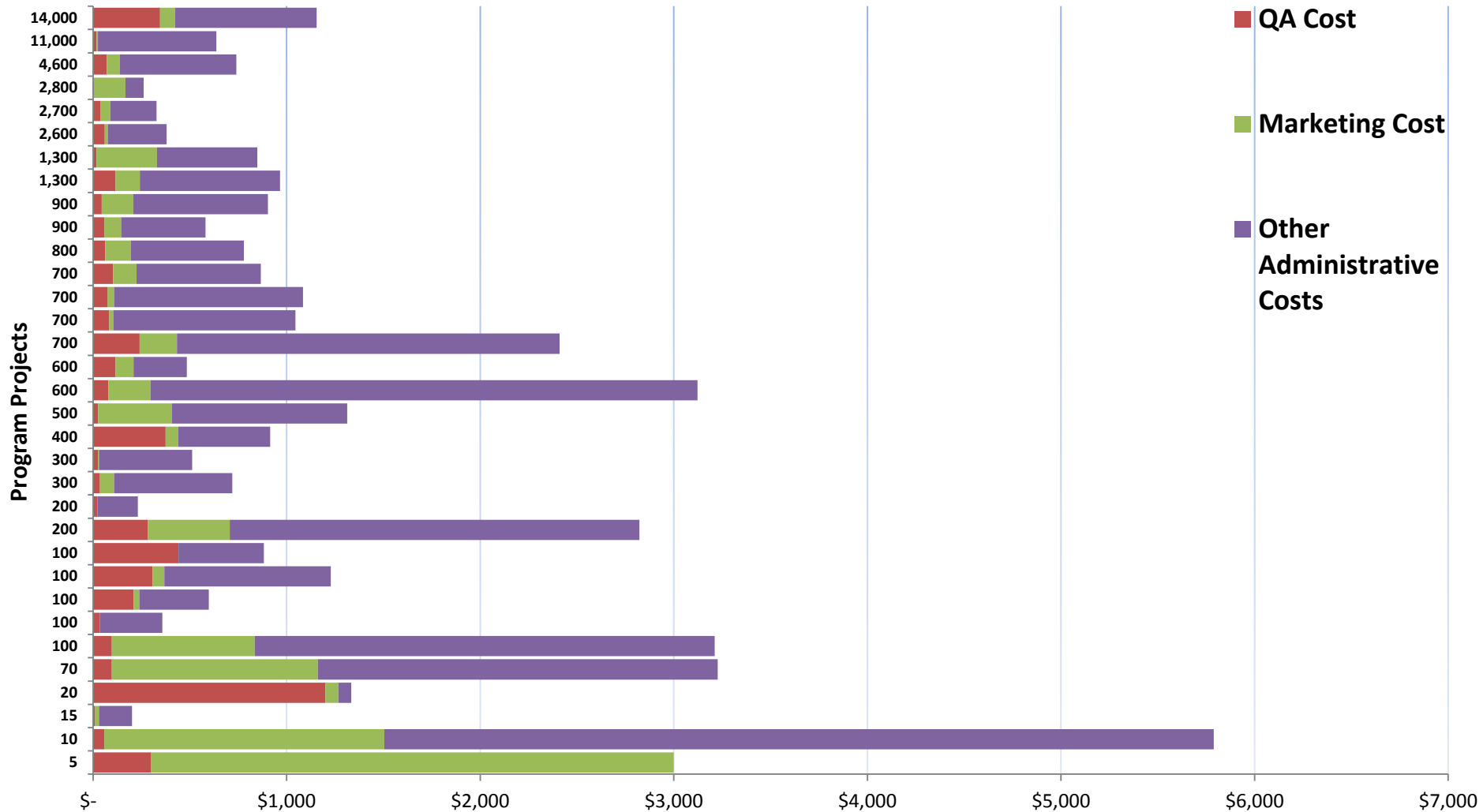
Budgeting: Total Program Spending, All Sponsors (N=40)



Per-Project Spending (N=37)



Per-Project Administrative Spending Breakdown (N=33)



Marketing



Marketing Spending (N=36)

**\$5 million marketing
spending**



**Average
\$99 per
project**

The Air Conditioning Contractor's Association of America estimates the average industry cost per lead to be between \$250 - \$300.

Marketing: Emerging Opportunities

Multifamily (4% of Projects)



9 Sponsors

3,204 projects

Income-Targeted (16% of Projects)



10 Sponsors

13,061 units

Workforce



Most Active Trades in HPwES (N=43)

The percentage of Sponsors indicating each trade as their most active workforce:



Home Performance

74%



Insulation

16%



HVAC

10%

- 1,600 active contractors.
- 138 Century Club Winners completed 44% of 2016 projects.

Diversity of Trades in HPwES (N=43)



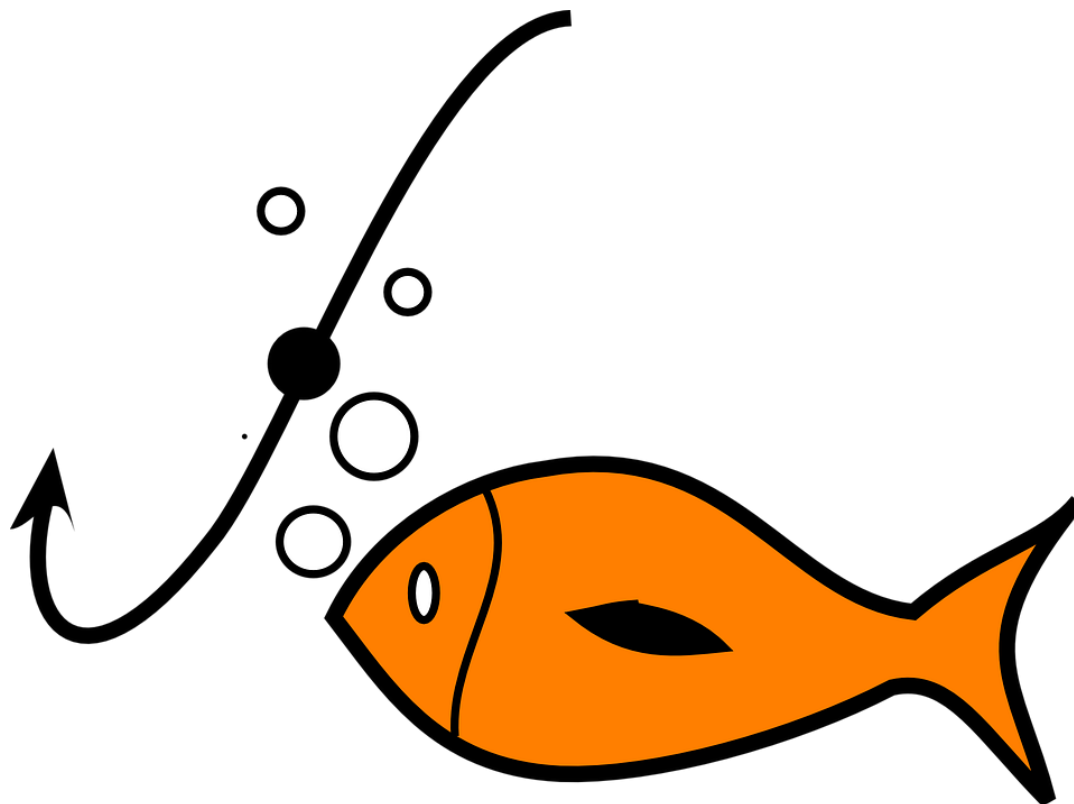
88% of Sponsors relied on at least 3 different types of trade contractors.



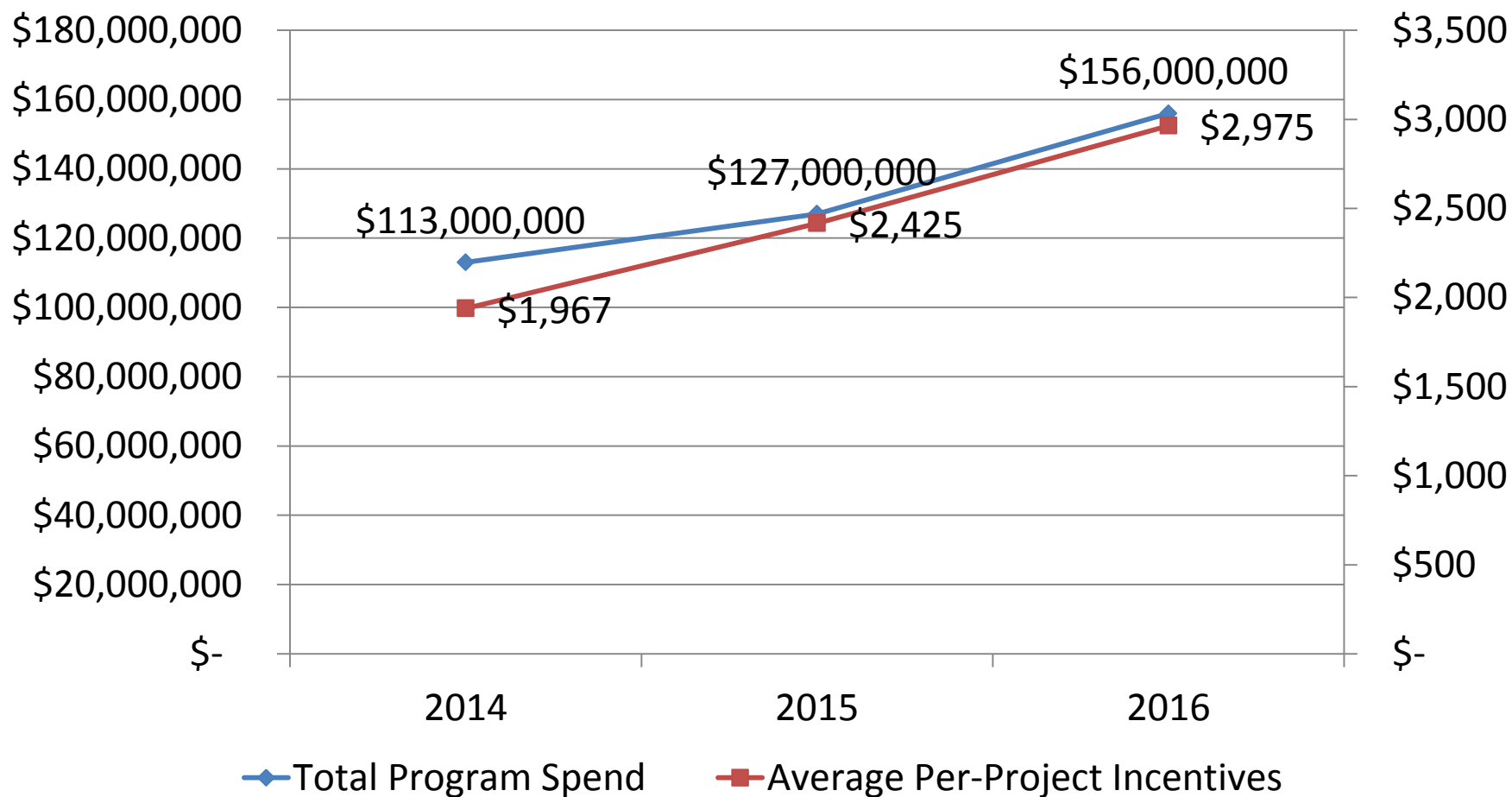
70% worked with 4 or more types

In addition to Home Performance, HVAC, and Insulation Contractors; Sponsors worked with Plumbing, Remodeling, Handymen, Window, and Solar Contractors.

Customer Incentives



Consumer Incentives Overview (N=35)



Per-Project Spending on Consumer Incentives, by % of Sponsors

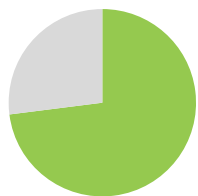
	2014 (N=36)	2015 (N=35)	2016 (N=35)
Less than \$1,000	42%	36%	31%
\$1,000 to \$1,999	22%	19%	29%
\$2,000 to \$2,999	22%	22%	17%
\$3,000 to \$3,999	6%	3%	11%
\$4,000 or more	8%	17%	11%

The average homeowner incentive per project is \$2,975.

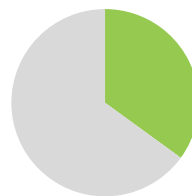
The range is between \$5 and \$7,300.

Customer Incentives Offered

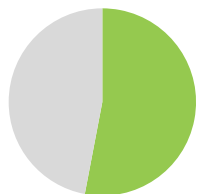
40 Sponsors reported offering consumer incentives. Of these, the percentage offering each measure was:



73% - Measure-based rebates



35% - Project-based Rebates



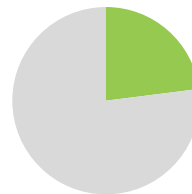
53% - Discounted Energy Assessments



32% - Free Energy Assessments

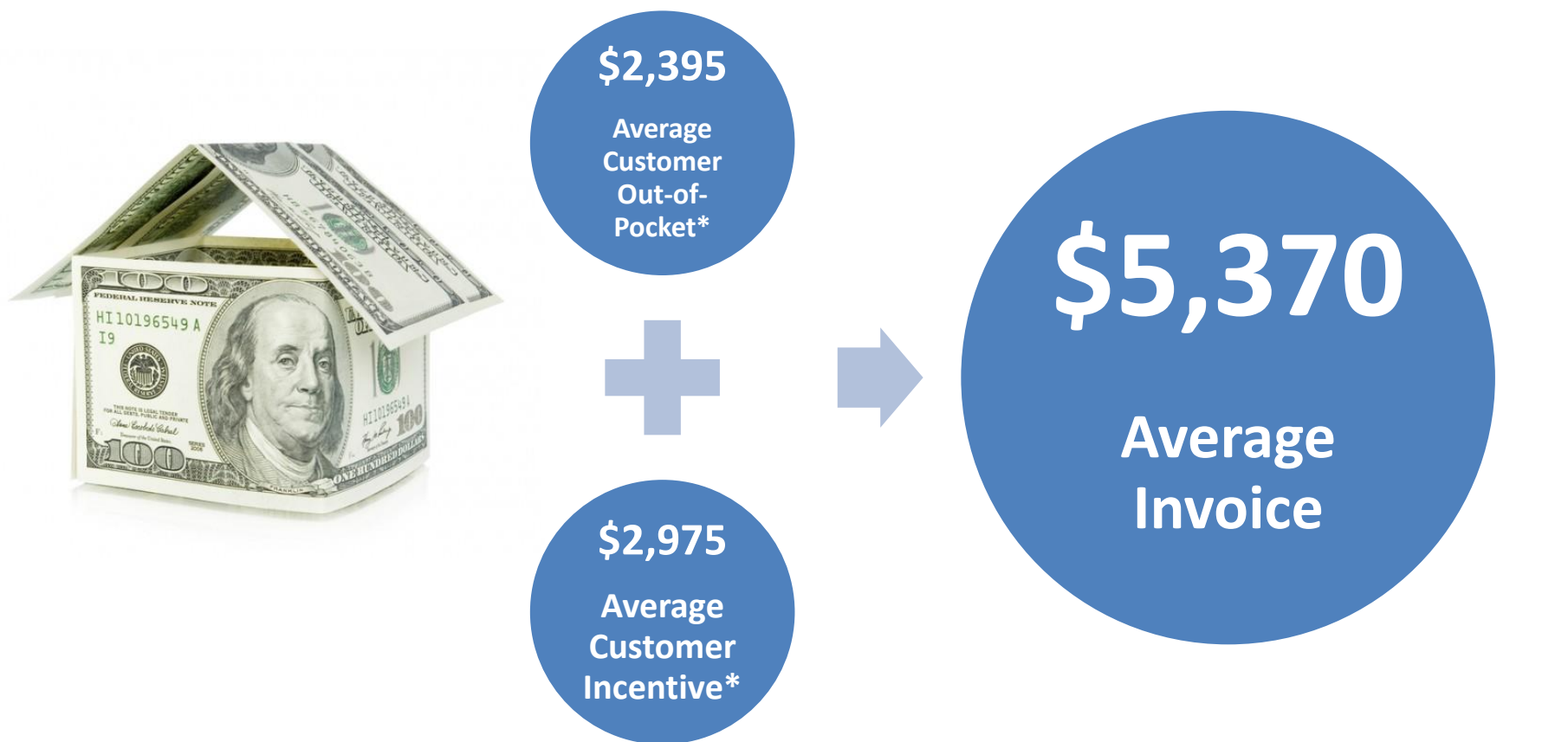


38% - Low-interest Financing



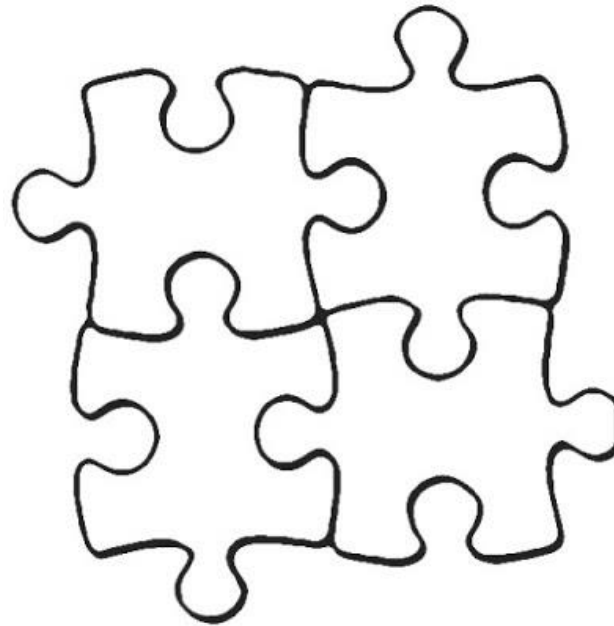
23% - On-bill Financing

Settling Up



Average Invoice N=38
Average Customer Incentive N=35
* Out-of-Pocket and Customer Incentive are Calculated

Measure Mixes



Project Measures

Percentage of Projects Completed with Each Measure (N=41)



85% - Shell/envelope



20% - HVAC Replace



53% - Lighting



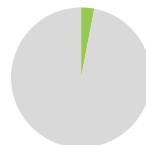
10% - Water Heating



29% - Duct Sealing



7% - HVAC Repair



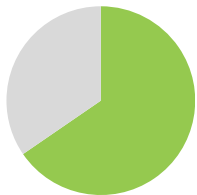
3% - Appliances

Compared with 2014:

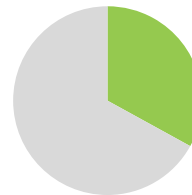
- Water Heating down from 41% to 10%
- Lighting up from 46 to 53%
- Appliances up from 1 to 3%

Project Measures: Direct Install

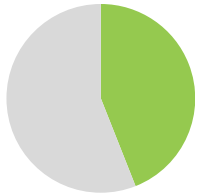
Percentage of Sponsors offering direct install measures by type (N=26)



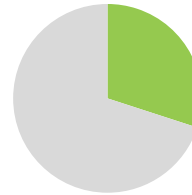
69% - Lighting



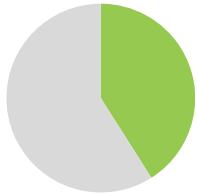
31% - Smart Energy Strip



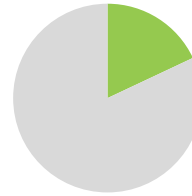
46% - Water DHW



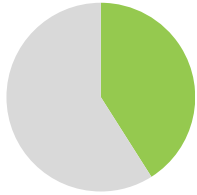
27% - Pipe Insulation



35% - Water Conservation



23% - Air Sealing



31% - Duct Sealing



15% - Thermostats

Quality Assurance



Following Through: Quality Assurance

\$406

Average cost of one field inspection (N=37)

\$144

Average QA cost per project (N=35)

Who Does QA? Sponsors say (N=43):

53% In-house
19% Hybrid
14% Contractor hired by program
14% Independent 3rd party

QA Inspection Points (N=44)

At how many points in the project timeline do Sponsors conduct QA? Options include: during the assessment, installation, test-out and post-installation.

25%

at 1 point
(31% of projects)

30%

at 2 points
(16% of projects)

7%

at 3 points
(1% of projects)

39%

at 4 points
(52% of projects)

This graph indicates the number of stages that are reviewed during an on-site inspection. On-site inspections are not file reviews, though file reviews should be used to inform the on-site inspection process and be a part of the quality assurance plan.

Strategies to Grow



Increase and Enhance
Partnerships



Expand Outreach and
Marketing



Improve Operational
Excellence



Integrate R&D to
Enhance the Value
Proposition



Enhance Stability and
Certainty in the Market

Questions?

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